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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,721	02/04/2002	Babak Damaghi	34294/17	4057

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EXAMINER	
STEPHENS, JACQUELINE F	
ART UNIT	**PAPER NUMBER**
3761	4

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/066,721	DAMAGHI ET AL.	
	Examiner	Art Unit	
	Jacqueline F Stephens	3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruemmer et al. USPN 5176672.

As to claim 1, Bruemmer discloses a disposable absorbent article comprising:

(a) a liquid-pervious topsheet 12,

(b) a liquid-impervious and vapor-pervious backsheet 14 (col. 7, lines 40-42) having a top surface and a rear surface,

(c) a crotch region,

(d) a liquid absorbent layer 18 disposed between the topsheet and backsheet. The liquid-absorbent layer 18 has a crotch region, a top surface and a bottom surface and a single through slit 22 extending from the top surface to the bottom surface of the liquid absorbent layer 22. The slit 22 is from about 0.5 to about 1.5 inches wide and from about 2 to about 10 inches long and disposed within the crotch region of said absorbent layer (col. 4, lines 49-68).

As to claim 7, Bruemmer discloses a disposable absorbent article comprising:

(a) a liquid-pervious topsheet 12 having opposed lateral ends,

(b) a liquid-impervious and vapor-pervious backsheet 14 having opposed lateral ends (col. 7, lines 40-42) having a top surface and a rear surface,

(c) a crotch region,

(d) a liquid absorbent layer 18 disposed between the topsheet and backsheet. The liquid-absorbent layer 18 has a crotch region, a longitudinal axis, a transverse axis, a top surface and a bottom surface, opposed longitudinal sides and opposed lateral sides, and a single through slit 22 extending from the top surface to the bottom surface of the liquid absorbent layer 22. The slit 22 is from about 0.5 to about 1.5 inches wide and from about 2 to about 10 inches long and disposed within the crotch region of said absorbent layer (col. 4, lines 49-68).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2, 4, 6, 8, 10, 12, 13, 15-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruemmer USPN 5176672.

As to claims 2 and 8, Bruemmer discloses the liquid absorbent layer 22 is made of a material comprising a mixture of cellulosic fibers and superabsorbent polymer (col. 8, lines 24-30). Bruemmer does not specifically disclose fluff in the layer. However, it is old and well known to one of ordinary skill in the art, and therefore obvious, to use cellulose fluff as an absorbent pad material. For example Everett et al. USPN 5562650 teaches a matrix of cellulosic wood pulp fluff and superabsorbent polymer fibers (Everett col. 15, lines 10-14).

As to claims 4 and 10, Bruemmer discloses the liquid absorbent layer is defined by a pair of opposed longitudinal sides and a pair of opposed lateral sides. The slit is

defined by a pair of opposed longitudinal sides and a pair of opposed lateral sides (Figure 5, element 18). Bruemmer discloses a fluff-SAP mixture enriched zone 76 defined between longitudinal sides of the absorbent layer and longitudinal sides of the slit, and lateral sides of the absorbent layer and lateral sides of the slit (col. 5, lines 45-51). The basis weight of the enriched zone is higher than the basis weight of the remainder of the absorbent layer because the enriched zone contains more absorbent material as relative to the remainder of the absorbent layer 18 (Figure 6).

As to claims 6 and 12, Bruemmer discloses the distance between the front edge of the slit and the front edge of the diaper can be varied depending on the overall size of the diaper (col. 4, lines 65). Bruemmer discloses the front edge of the slit can be 5-20cm from the front edge of the diaper, which at 5 cm, would encompass the crotch region therefore, the distance between the front edge of the slit and the front edge of the crotch region would be minimal or zero and therefore, less than the distance between the back edge of said slit and the back edge of said crotch region.

As to claim 13, Bruemmer discloses a liquid absorbent sheet 18 having a top surface and a bottom surface, and a thickness of from about 100 to about 400 mils. Bruemmer discloses the depth of the hole, which corresponds to the thickness of the absorbent sheet 18 (Figure 6) has a thickness of 1mm to 1cm (col. 5, lines 1-8), which corresponds to a thickness of 39.3 to 393 mils. The liquid absorbent sheet 18 is by a

pair of opposed longitudinal sides, a pair of opposed lateral sides, and elongated through slit 22 extending from the top surface to the bottom surface of the liquid absorbent sheet 18. Bruemmer discloses an absorbent-enriched zone 76 defined between longitudinal sides of the absorbent layer and longitudinal sides of the slit, and lateral sides of the absorbent layer and lateral sides of the slit. Bruemmer discloses the liquid absorbent layer 22 is made of a material comprising a mixture of cellulosic fibers and superabsorbent polymer (col. 8, lines 24-30). Bruemmer does not specifically disclose fluff in the layer. However, it is old and well known to one of ordinary skill in the art, and therefore obvious, to use cellulose fluff as an absorbent pad material. Bruemmer discloses the absorbent enriched zone 76 contains a greater amount of absorbent (SAP) mixture in the zone as compared to the remaining portion of the absorbent layer.

As to claim 15, Bruemmer discloses a the present invention substantially as claimed. Bruemmer does not disclose the backsheet an topsheet have medial cutout portions at the side edges. However, an hour-glass or dog-bone shape, which has medial cutout portions is old and well known in the art for shapes of absorbent articles. It would have been an obvious matter of design choice to provide the article of Bruemmer with such a shape, since such a modification would have involved a mere change in the shape of the component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In Re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)

Bruemmer discloses a breathable (backsheet is breathable col. 7, lines 40-42) disposable absorbent article with a liquid-pervious topsheet 12 and a liquid-impervious and vapor-pervious backsheet 14 (col. 7, lines 40-42) that are sealed together (Figure 2A). Bruemmer further discloses a liquid absorbent layer 18 disposed between the topsheet and backsheet. The liquid-absorbent layer 18 having a crotch region, a longitudinal axis, a transverse axis, a top surface and a bottom surface, opposed longitudinal sides and opposed lateral sides, and a single through slit 22 extending from the top surface to the bottom surface of the liquid absorbent layer 22. The slit 22 is from about 0.5 to about 1.5 inches wide and from about 2 to about 10 inches long and disposed within the crotch region of said absorbent layer (col. 4, lines 49-68). Bruemmer further discloses at least one releasable fastening means 36 at each of the side edges disposed at one end of the absorbent article, and at least one zone 38. It is old and well known in the art that conventional hook-and-loop systems have a loop element that may be provided by a polymeric woven fabric, a nonwoven fabric, or a perforated or apertured layer. The many arrangements and variations of such fastener systems have been collectively referred to as hook-and-loop fasteners available for example, under the VELCRO trademark. The zone 38 has an inside surface adherent to the backsheet, and an opposed outer surface adapted to be releasably engaged to the fastening means 36 (Figure 2A).

As to claim 16, Bruemmer discloses the claimed invention except for the landing zone of Bruemmer is a single landing zone 34/38 having an inside surface adherent to

the backsheet, and an opposed outer surface adapted to be releasably engaged to fastening means 36. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bruemmer to have a pair of landing zones 34/38 since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman,* 168 USPQ 177, 179.

As to claim 17, Bruemmer discloses the liquid absorbent layer 22 is made of a material comprising a mixture of cellulosic fibers and superabsorbent polymer (col. 8, lines 24-30). Bruemmer does not specifically disclose fluff in the layer. However, it is old and well known to one of ordinary skill in the art, and therefore obvious, to use cellulose fluff as an absorbent pad material.

As to claim 19, Bruemmer discloses the liquid absorbent layer is defined by a pair of opposed longitudinal sides and a pair of opposed lateral sides. The slit is defined by a pair of opposed longitudinal sides and a pair of opposed lateral sides (Figure 5, element 18). Bruemmer discloses a fluff-SAP mixture enriched zone 76 defined between longitudinal sides of the absorbent layer and longitudinal sides of the slit, and lateral sides of the absorbent layer and lateral sides of the slit (col. 5, lines 45-51). The amount of the fluff-SAP mixture in said zone is greater than the amount of

fluff-SAP mixture in the remaining portion of said absorbent layer (col. 5, lines 45-51 and Figure 6).

6. Claims 3, 5, 9, 11, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruemmer in view of Everett et al. USPN 5562650. Bruemmer discloses the present invention substantially as claimed. However, Bruemmer does not disclose the percentage of SAP in the absorbent layer. Everett discloses the percentage of SAP in a fluff-SAP matrix of 25-70% (Everett col. 15, lines 10-26) for providing enough absorbent capacity for good performance. It would have been obvious to one having ordinary skill in the art to modify the layer 18 of Bruemmer to have an amount of SAP in the claimed range for the benefits disclosed in Everett.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline F Stephens whose telephone number is (703) 308-8320. The examiner can normally be reached on Monday-Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (703)305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jacqueline F Stephens
Examiner
Art Unit 3761

March 20, 2004